

## CLAIMS:

1. Modulator system (1) comprising a first modulator (2) for modulating an input signal (A) according to a first modulation scheme and a second modulator (3,4) for modulating the input signal (A) according to a second modulation scheme, which modulator system (1) comprises a compensator (13,22-26) for combining at least one modulator signal with at least one waveform (E,S,T,X,Y,Z) for compensating at least one signal parameter of an output signal (F) for discontinuities resulting from a modulation scheme change.  
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2. Modulator system (1) according to claim 1, further comprising at least one pulse shaper (11,21), with the compensator (13) being located after the pulse shaper (11,21).  
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3. Modulator system (1) according to claim 2, wherein the compensator (13) comprises a multiplier (13) for multiplying the modulator signal in the form of at least one pulse shaped modulated signal with the waveform (E) in the form of a complex valued waveform (E), with the at least one signal parameter comprising an amplitude and a phase.  
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4. Modulator system (1) according to claim 1, further comprising at least one pulse shaper (11,21), with the compensator (22-26) being located before the pulse shaper (11,21).
- 20 5. Modulator system (1) according to claim 4, wherein the compensator (25,26) comprises at least one multiplier (25,26) for multiplying the modulator signal in the form of at least one modulated signal with the waveform (S,T), with the at least one signal parameter comprising an amplitude.
- 25 6. Modulator system (1) according to claim 4, wherein each modulator (2,3,4) comprises at least one multiplier (8,15,18) for multiplying a mapped input signal with a complex valued signal (B,C,D), with the compensator (22-24) comprising at least one multiplier (22-24) for multiplying the modulator signal in the form of the complex valued

signal (B,C,D) with the waveform (X,Y,Z) in the form of a complex valued phase offset (X,Y,Z), with the at least one signal parameter comprising a phase.

7. Modulator system (1) according to claim 1, wherein the first modulation  
5 scheme is a Phase Shift Keying modulation scheme and the second modulation scheme is a Gaussian Minimum Shift Keying modulation scheme.
8. Transmitter (30) comprising a modulator system (1) comprising a first  
modulator (2) for modulating an input signal (A) according to a first modulation scheme and  
10 a second modulator (3,4) for modulating the input signal (A) according to a second modulation scheme, which modulator system (1) comprises a compensator (13,22-26) for combining at least one modulator signal with at least one waveform (E,S,T,X,Y,Z) for compensating at least one signal parameter of an output signal (F) for discontinuities resulting from a modulation scheme change, which transmitter (30) further comprises a  
15 power amplifier (33) for amplifying the output signal (F).
9. Modulator (2,3,4) for modulating an input signal (A) according to a modulation scheme, which modulator (2,3,4) comprises a compensator (13,22-26) for combining at least one modulator signal with at least one waveform (E,S,T,X,Y,Z) for  
20 compensating at least one signal parameter of an output signal (F) for discontinuities resulting from a modulation scheme change.
10. Method for modulating an input signal (A) according to a first modulation scheme and for modulating the input signal (A) according to a second modulation scheme,  
25 which method comprises a step of combining at least one modulator signal with at least one waveform (E,S,T,X,Y,Z) for compensating at least one signal parameter of an output signal (F) for discontinuities resulting from a modulation scheme change.
11. Processor program product for modulating an input signal (A) according to a  
30 first modulation scheme and for modulating the input signal (A) according to a second modulation scheme, which processor program product comprises a function of combining at least one modulator signal with at least one waveform (E,S,T,X,Y,Z) for compensating at least one signal parameter of an output signal (F) for discontinuities resulting from a modulation scheme change.